THROMBUS PREVENTION AND IMPEDANCE APPARATUS AND METHODS

ABSTRACT OF THE DISCLOSURE

An apparatus and methods for the prevention or minimization of lower extremity venous thrombosis comprising an impedance component disposed at the proximal end of the lower extremity and a compression component disposed at the distal end of the lower extremity. The proximal impedance component is activated to impede return venous blood flow, preferably on the femoral vein, until blood volume in the lower extremity is maximized. In response to deactivation of the proximal compression component, the distal compression component is activated to assist return venous blood flow. The apparatus and methods enhance blood circulation in the lower extremity by increasing washout of stagnant blood from the lower extremity, particularly from the venous sinuses and valve cusps where thrombosis tends to form.